AMENDMENT OF CLAIMS:

Please amend the claims as follows:

1 – 4 (canceled)

5.   (currently amended) A method for the operation of a technical system, comprising:

recording a plurality of operating parameters of a system during a time interval; and

determining an operating or functional mode of the technical system from the temporal behavior the operating parameters using artificial intelligence methods selected from the group consisting of: neuronal network, fuzzy logic, combined neuro/fuzzy method, and genetic algorithm, wherein the determining of the operating or functional mode of the technical system from the temporal behavior the operating parameters is performed with no pre-existing model of the technical system, wherein the technical system comprises a power station including at least a gas turbine, wherein the recorded operating parameters comprise operating parameters of at least said gas turbine, wherein the determining of the operating or functional mode of the technical system comprises determining the operating or functional mode of at least said gas turbine with no pre-existing model of the gas turbine.

6.   (previously presented) The method according to claim 5, wherein an operating and a functional mode of the technical system are determined from the temporal behavior the operating parameters using artificial intelligence methods selected from the group consisting of: neuronal network, fuzzy logic, combined neuro/fuzzy method, and genetic algorithm.

7.   (previously presented) The method according to claim 5, wherein the operating parameters are recorded as data sets during a plurality of temporally separate time intervals and the data sets are compared using the artificial intelligence methods, and an adjustment of the operating parameters is determined in order to achieve a desired operating mode of the technical system.

8.   (previously presented) The method according to claim 7, wherein a probability that an adjustment of the operating parameters provides for the desired operating mode is determined.

9.   (previously presented) The method according to claim 8, wherein the operating mode of the technical system is determined using a correlation analysis of the operating parameters, wherein the result of changes in operating parameters that correspond to input parameters is determined based on operating parameters which correspond to output parameters.

10.   (currently amended) A method of controlling the operation of a power station comprising at least a gas turbine, the method comprising:

recording operating parameters of at least ~~part of a system~~said gas turbine during a time interval;

determining an operating mode or functional mode of the ~~technical system~~gas turbine from the temporal behavior the operating parameters using artificial intelligence methods selected from the group consisting of: neuronal network, fuzzy logic, combined neuro/fuzzy method, and genetic algorithm, wherein the determining of the operating or functional mode of the ~~technical system~~gas turbine from the temporal behavior the operating parameters is performed with no pre-existing model of the ~~technical system~~gas turbine;

assigning a fingerprint to the operating parameter by the artificial intelligence method;

comparing the fingerprint to a predetermined fingerprint; and

adjusting the operating parameters of the ~~power station~~gas turbine in order to achieve a desired operation of the power station.

11.   (previously presented) The method according to claim 10, wherein a probability that an adjustment of the operating parameters provides for the desired operating mode is determined.

12. (currently amended) The method according to claim 11, wherein the operating mode of the ~~power station~~gas turbine is determined using a correlation analysis of the operating parameters, wherein the result of changes in operating parameters that correspond to input parameters is determined based on operating parameters which correspond to output parameters.